The Mechanical Ambush

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With the recurrent interest in light infantry techniques, many of the lessons learned in Vietnam are also enjoying a comeback. One technique widely used then but almost forgotten since is the mechanical ambush. (See also "The Ambush" by Brigadier General Wayne A. Downing and Command Sergeant Major George D. Conrad, INFANTRY, January-February 1986, pp. 21-26.)

The term "mechanical ambush" was used to describe the employment of claymore mines in conjunction with an electrical firing circuit and various types of trigger devices to cover areas a unit could not otherwise cover with its organic weapons. A mechanical ambush was especially effective against an enemy who often moved in small numbers during periods of limited visibility, and who was usually thoroughly familiar with the local area.

Most platoon-sized elements emplaced one or two mechanical ambushes in areas accessible to their night defensive perimeter, usually in places where there was evidence of enemy passage or on routes of approach into the perimeter. The ambush was taken up after standto the following morning, and the materials used in its construction were saved and used again the next night.

The mechanical ambush seems to have been an invention of the soldiers in the field, who constructed it out of field expedient materials. Its emplacement and disarming was left to several trusted and proven individuals, normally platoon sergeants or squad leaders, because it was extremely dangerous. Accidents occurred frequently in units that did not have rigid SOPs for constructing and disarming the systems. Platoon leaders and company commanders personally supervised at least the employment of the ambushes, and their locations were reported to higher headquarters and coordinated as temporary minefields would have been. Most units had a favorite method of constructing a mechanical ambush, especially with the triggering device, and more than any other item in the Vietnam war, the mechanical ambush displayed our soldiers' ingenuity.

This type of ambush is still worthy of consideration today. It consists of three component parts—the triggering device, the claymore munitions, and the firing circuit (Figure 1). In constructing such an ambush, one must grasp the concept of an electrical firing circuit—once the circuit is closed through the use of the triggering device, the ambush explodes.

The claymore mines are emplaced and aimed with maximum effective ranges and range fans in mind. Since claymore fires are three dimensional, they can be emplaced in trees or high stream banks to fire downward with devastating effect. The claymores are then connected with detonating cord, and a non-electric blasting cap is crimped on each end of each length of cord; the cap is slipped into the fuze well of the claymore, and the entire group of mines "daisy-chained" together. Although there is theoretically no limit to the number of claymores that can be emplaced, the number actually used should be dictated by the configuration of the ambush site and by the idea that a mechanical ambush should be as simple as possible.

The firing circuit is constructed from the wire that is included in the kit for installing the claymore mine. This wire can be lengthened or shortened, depending on the needs of the moment, but it must be modified as shown in Figure 2.

Point A in the sketch is the electric blasting cap, which is inserted into the

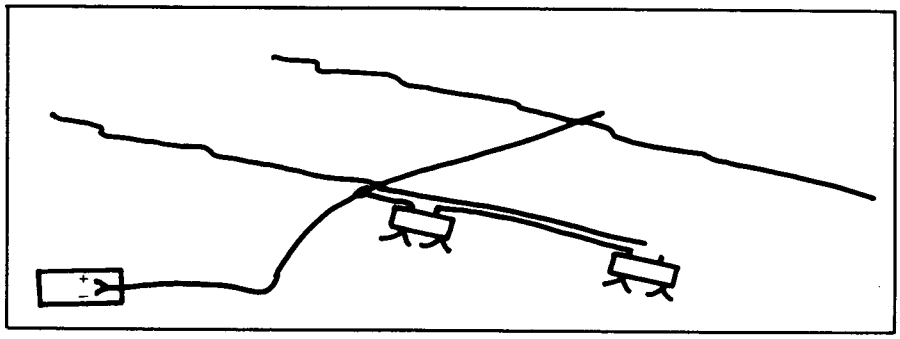

Figure 1. A mechanical ambush consists of a triggering device, claymore munitions, and a firing circuit.

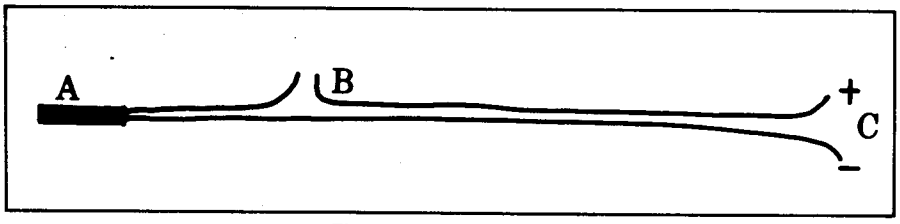

Figure 2. Firing circuit.

fuze well of the last claymore mine in the chain. Point B is simply a cut in the circuit into which the triggering device will be placed. The power source, normally a battery, will be placed at Point C. (The electric blasting cap requires only .9 volts to explode, and a PRC-77 battery can be used for this task. When it is, the receptacle end of the PRC-77 battery should be disassembled and the black and white wires cut and stripped to get the maximum voltage.)

The final component of a mechanical ambush—and the one that shows true GI ingenuity—is the firing device. The different types can be generally classified into four categories—standard pull, pull-release, pressure, and motion sensitive—all of them constructed of field expedient materials. Examples of the four categories are shown in Figures 3, 4, 5, and 6.

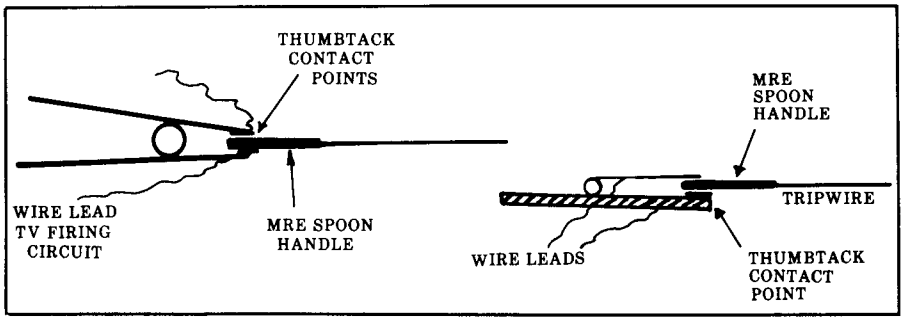

Figure 3. Firing devices in the "pull" category—the clothespin (left) and the mousetrap (right).

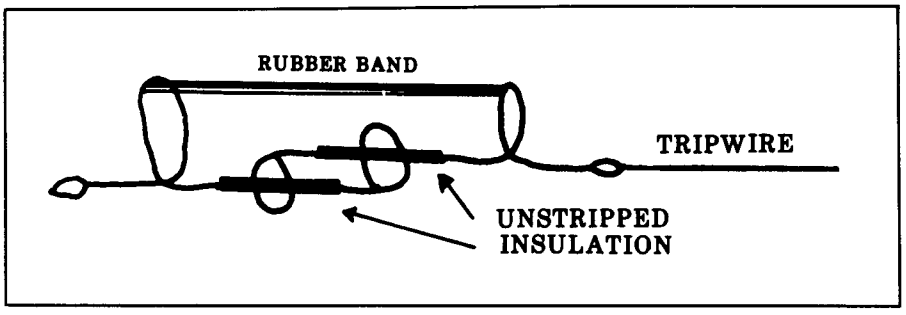

Figure 4. The slipwire, a pull-release device.

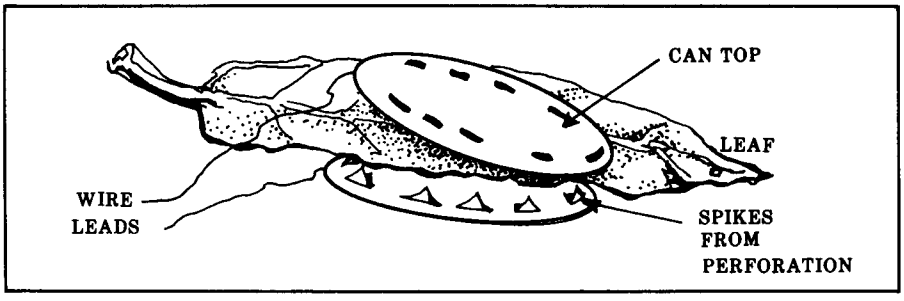

Figure 5. A pressure device.

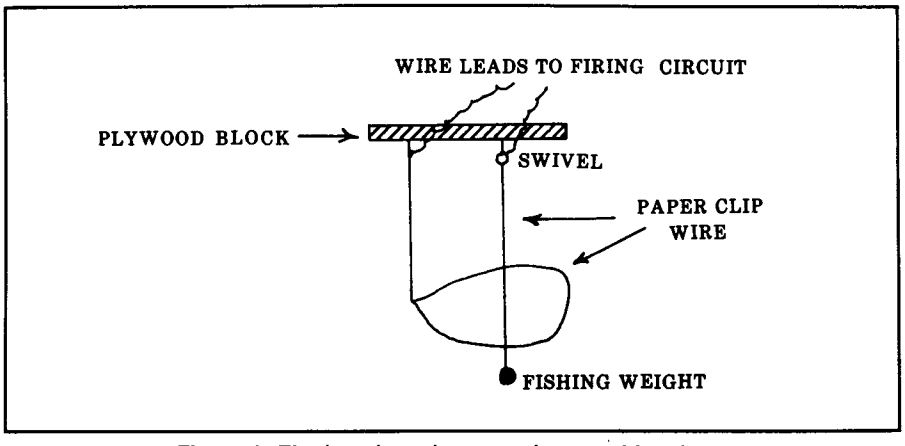

Figure 6. The hanging wire, a motion sensitive device.

The slipwire device shown in Figure 4 is made of two pieces of standard 12-gauge plastic-covered electrical wire, the kind that can be found in household electrical cable. One wire is bent with a pair of needlenose pliers and then the other wire is bent around it. The plastic insulation should not be trimmed until a decision is made on how far the wire needs to slip before making contact. (This is my favorite, because it is compact and highly efficient. Against an enemy lacking mechanical skills in Vietnam, it was highly effective, because he could never decide how to disarm it.)

A pressure device (Figure 5) is the least recommended one because it is difficult to insulate and depends on an enemy soldier stepping directly on it. It can be constructed from two tin-can ends, partially punched with a beer can opener to make a few small spikes before they are removed from the can. These small spikes are kept apart by a leaf, which they will readily puncture if the device is stepped on, thereby making common contact. Another leaf can be used to camouflage the top of the device.

The hanging wire device (Figure 6) can be hung from a limb or placed in a bush that an enemy will have to brush out of the way to clear a trail. The motion of the limb will cause the pendulum to move, which will then make contact with the encircling ring. If the enemy has become wary of tripwires or has his eyes on the ground, this can be an effective triggering device. But anyone employing it must keep in mind that the wind can also trigger it.

A mechanical ambush must be installed and recovered sequentially to insure the safety of all involved. These instructions should be followed:

First, select the ambush site and plan the locations of the claymore mines, the triggering device, and the battery. See that the battery is hidden from the kill zone and that it can be reached without going through that zone. Install the mines, then the trigger device. Unroll the firing circuit, keeping all ends shunted

together, back to the location chosen for the battery.

After insuring that all personnel are out of the area, connect the trigger device and then place the blasting cap into the last claymore mine. Then follow the firing circuit wire back to the battery location, take cover, and connect the battery. Recover in reverse order. THE BATTERY MUST ALWAYS BE CONNECTED LAST AND RECOVERED FIRST.

It is a good idea to remain near the ambush to detect any tampering. Don't forget that the mechanical ambush cannot distinguish between friend and foe; make sure that the person who emplaced the device also recovers it, and that he uses landmarks to orient himself during the recovery process.

Anyone recovering a mechanical ambush must use extreme caution. If the ambush has been detected, there may be a counterambush or a booby trap waiting. And if the ambush has exploded, there may be wounded enemy soldiers to deal with.

The following are some combat tips that will increase the effectiveness of a mechanical ambush:

- Waterproof the trigger device if possible with a small plastic bag. Tape all bare wires and use a PRC-77 battery bag to waterproof the power source.
- Camouflage all components of the ambush well. Instead of using issue tripwire, use a small, strong vine and arrange it so that it appears to be random growth.
- A tripwire with some slack in it is preferable to a taut one, especially when fighting an enemy who is likely to be barelegged and therefore sensitive to it. Vary the height of tripwires, but remember that generally a slack tripwire at knee level is less likely to be detected.
- Augment the effectiveness of the claymore mines by hanging a white phosphorus grenade on the front of the mine; don't forget to camouflage the grenade.
- Aim all claymore mines and make sure their fires are overlapping. It is generally better to aim low and use the effect of rocks and dirt to inflict further casualties.

Soldiers should be allowed to use their imagination, but strict control and safe handling of the component parts of a mechanical ambush are essential.

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Moving to An Alternate CP

CAPTAIN ROBIN P. SWAN

A tactical operations center (TOC), because of its role as a task force's command, control, communications and intelligence center, is a major source of electromagnetic and infrared energy, and this makes it an easy target for the enemy to locate and highly susceptible to attack by indirect fire. Units have developed many techniques for reducing the likelihood of enemy attack, such as moving the TOC frequently, using camouflage, remoting radio platforms, and masking the antennas.

If a TOC is attacked, however, and rendered incapable of performing its mission, the task force administration/logistic center (ALC) must quickly assume the functions of the TOC and help the task force commander with the command and control of the current operation. The complexity of this task can be reduced considerably if TOC and ALC personnel have been trained in the actions they must take in the event the TOC is attacked.

GUIDE

The following procedural guide for meeting such a situation was developed by the 3d Battalion, 41st Infantry, and practiced during several training exercises. Other units may find it a starting point from which to prepare their own guides that conform to their standing operating procedures.

Step 1. The TOC is neutralized. Survivors assess the damage and treat the casualties. A surviving radio platform (if available) is used to pass operational control to the ALC. (This report includes a damage and casualty assessment.) The ALC assumes TOC duties and responds to radio calls using the TOC call sign.

Step 2. The ALC assumes control of operations and switches radio frequencies in the ALC M577 to operate in the brigade operations/intelligence (O/I), task force command, and task force administration/logistics (A/L) FM radio nets. ALC personnel monitor the brigade command and brigade A/L nets from the S-4's HMMWV (high-mobility multipurpose wheeled vehicle) or M151. The ALC informs the brigade net control station (NCS) that the TOC has been neutralized.

Step 3. The ALC dispatches a medical evacuation vehicle to the TOC site. TOC survivors continue treating casualties. The senior TOC survivor takes